



DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

[Docket No. NHTSA-2015-0054; Notice 2]

Mack Trucks, Inc., Grant of Petition for
Decision of Inconsequential Noncompliance

AGENCY: National Highway Traffic Safety Administration (NHTSA),
Department of Transportation (DOT).

ACTION: Grant of petition.

SUMMARY: Mack Trucks, Inc. (Mack), has determined that certain model year (MY) 2014-2016 Mack LEU model incomplete vehicles do not fully comply with paragraphs S5.3.3 and S5.3.4 of Federal Motor Vehicle Safety Standard (FMVSS) No. 121, *Air Brake Systems*. Mack has filed an appropriate report dated April 27, 2015, pursuant to 49 CFR part 573, *Defect and Noncompliance Responsibility and Reports*.

ADDRESSES: For further information on this decision contact James Jones, Office of Vehicle Safety Compliance, the National Highway Traffic Safety Administration (NHTSA), telephone (202) 366-5294, facsimile (202) 366-3081.

SUPPLEMENTARY INFORMATION:

I. Overview: Pursuant to 49 U.S.C. 30118(d) and 30120(h) (see implementing rule at 49 CFR part 556), Mack submitted a petition for an exemption from the notification and remedy requirements of 49 U.S.C. Chapter 301 on the basis that this noncompliance is inconsequential to motor vehicle safety. After reviewing the petition, NHTSA requested additional information from Mack by letter dated July 9, 2015. In response to that letter, Mack provided supplemental information by letter dated July 17, 2015. Copies of NHTSA's request and Mack's response are available from the petition docket.

Notice of receipt of the petition was published, with a 30-day public comment period, on August 18, 2015 in the Federal Register (80 FR 50069). No comments were received. To view the petition and supporting documentation log onto the Federal Docket Management System (FDMS) website at: <http://www.regulations.gov/>. Then follow the online search instructions to locate docket number "NHTSA-2015-0054."

II. Vehicles Involved: Affected are approximately 1,977 MY 2014-2016 Mack LEU model incomplete vehicles manufactured between July 22, 2013 and April 20, 2015.

III. Noncompliance: Mack explains that the noncompliance is that the brake actuation and release times slightly (by milliseconds) exceed the requirements as specified in paragraphs S5.3.3 and S5.3.4 of FMVSS No. 121.

IV. Rule Text: Paragraph S5.3.3 of FMVSS No. 121 requires in pertinent part:

S5.3.3 *Brake Actuation time.* Each service brake system shall meet the requirements of S5.3.3.1(a) and (b)...

S5.3.3.1(a) With an initial service reservoir system air pressure of 100 psi, the air pressure in each brake chamber shall, when measured from the first movement of the service brake control, reach 60 psi in not more than 0.45 second in the case of trucks and buses,...

Paragraph S5.3.4 of FMVSS No. 121 requires in pertinent part:

S5.3.4 *Brake Release time.* Each service brake system shall meet the requirements of S5.3.4.1(a) and (b)...

S5.3.4.1(a) With an initial service brake chamber air pressure of 95 psi, the air pressure in each brake chamber shall, when measured from the first movements of the service brake control, fall to 5 psi in not more than 0.55 second in the case of trucks and buses,...

V. Summary of Mack's Arguments: Mack stated its belief that the subject noncompliance is inconsequential to motor vehicle safety for the following reasons:

- A) Mack conducted pneumatic brake timings tests on a test vehicle representative of the affected population to show the results compared to the requirement. The test vehicle was configured similar to a dual-drive (or twin steer) residential garbage truck equipped with left-hand and right-hand steering and brake controls. Tests were conducted on each axle, separately, using

the left-hand brake control and then, the right hand brake control.

Mack's data indicate that, on average, steer axle pneumatic brake actuation times exceed the requirement by 0.04 seconds, steer axle pneumatic brake release times, on average, exceed the requirement by 0.09 seconds, and drive axle brake timing results indicate compliance with the safety standard's requirement.

Mack stated that a change in brake chamber size from type 24 to type 30, which occurred in 2013 production, may have caused the noncompliance.

- B) Mack conducted additional brake timing and dynamic performance tests to evaluate how this noncompliance affects overall brake performance. The tests were performed by an independent testing and evaluation company, Link Commercial Vehicle Testing (Link) located in East Liberty, Ohio. According to Mack, the results of these tests clearly show that the trucks that are affected by the subject noncompliance are compliant with the brake stopping distance requirements. Mack provided a chart to illustrate the stopping distance test results. (Detailed results from the tests provided by Mack are available from the docket for this petition).

C) Mack stated that LEU's are used almost exclusively in residential garbage collection service. Because of that, Mack says there are no concerned vehicles that tow air-braked trailers and that compatibility with other air brake vehicles is also not cause for concern.

D) Mack also stated that brake release timing has been the subject of previous petitions that it believes are similar to its petition and were granted by NHTSA.

Mack has additionally informed NHTSA that it is correcting the noncompliance so that all future production of the subject trucks will fully comply with FMVSS No. 121.

In summation, Mack believes that the described noncompliance of the subject trucks is inconsequential to motor vehicle safety, and that its petition, to exempt Mack from providing recall notification of noncompliance as required by 49 U.S.C. 30118 and remedying the recall noncompliance as required by 49 U.S.C. 30120 should be granted.

NHTSA'S DECISION:

NHTSA's Analysis of Mack's Arguments: According to Mack, the results of the tests conducted by Link clearly show that the trucks that are affected by the subject noncompliance are compliant with the brake stopping distance requirements. We agree.

Link performed a series of FMVSS No. 121 stopping distance and stability and control tests on a Mack LEU dual-drive test vehicle, initially, fitted with type 24 steer axle brake chambers to represent the "compliant configuration" and then fitted with type 30 steer axle brake chambers to represent the "noncompliant configuration"¹.

With the test vehicle loaded to gross vehicle weight², Link conducted stopping distance tests at 9 different target speeds, ranging from 20 mph to 60 mph in 5 mph increments (i.e., 20, 25, 30, 35, 40, 45, 50, 55, 60 mph). Link conducted the tests, generally following NHTSA test protocols.

The data results indicate that the test vehicle in the "noncompliant" configuration met the safety standard's stopping distance requirements. Furthermore, the data results show that there is no significant difference in stopping distance performance between the two configurations. Additionally, Link performed stability and control (i.e., Braking-in-a-Curve) tests with the vehicle unloaded (unladen) representing worst case. Link conducted these tests, generally following NHTSA test protocols except that these tests were more severe than compliance tests because they were conducted at test

¹ Link also performed Performance Based Brake Tests (PBBT) prior to and after the burnish to verify system and ABS functionality.

² The Mack LEU dual-drive test vehicle was an incomplete chassis cab without a garbage container body installed. Link affixed a roll bar and load frame to the chassis frame rails to ensure the safety of the driver during testing and to allow ballast to be added to the test vehicle to simulate a loaded garbage truck.

speeds approximately 10% higher at 30 mph given a maximum drive speed of 36 mph³.

Again, data results indicate that the test vehicle in the "noncompliant" configuration met the safety standard's stability and control braking requirements and there is no significant difference in braking performance between the two configurations.

Mack also stated that brake release timing has been the subject of previous petitions that it believes are similar to its petition and were granted by NHTSA.

In previous petitions concerning brake release timing, NHTSA emphasized that only the failure of the subject vehicles was at issue. NHTSA concluded that, "the test data results and analyses were sufficient to grant the petition for the specific conditions that cause the subject vehicles to be out of compliance with the standard's pneumatic release time requirement."[emphasis added] (see 77 FR 20482)

Likewise, for this petition, we only consider the failure of the subject vehicles and whether the data and analyses are sufficient to grant the petition.

NHTSA's Decision: NHTSA has concluded that the braking performance of subject noncompliant vehicles is not adversely

³In the test report, Link indicated that the test vehicle achieved a maximum drive through speed of 36 mph. Per FMVSS No. 121, S5.3.6.1, the test speed is calculated as 75% of the maximum drive through speed which computes to 27 mph.

affected as a result of slightly longer pneumatic brake actuation and release times. The dynamic performance data provided by the petitioner indicate no difference in stopping distance performance for noncompliant vehicles when compared to compliant vehicles. The data confirm that stopping distances of noncompliant vehicles conform to the safety standard's performance requirements. Therefore, the subject noncompliant vehicles do not appear to pose an undue safety risk in braking performance in comparison to compliant vehicles.

The petitioner has met its burden of persuasion that the noncompliance described herein is inconsequential to safety. The petition is hereby granted. Accordingly, Mack is exempted from the obligation of providing notification of, and remedy for the subject noncompliance.

NHTSA notes that the statutory provisions (49 U.S.C. 30118(d) and 30120(h)) that permit manufacturers to file petitions for a determination of inconsequentiality allow NHTSA to exempt manufacturers only from the duties found in sections 30118 and 30120, respectively, to notify owners, purchasers, and dealers of a defect or noncompliance and to remedy the defect or noncompliance. Therefore, this decision only applies to the subject incomplete vehicles that Mack no longer controlled at the time it determined that the noncompliance existed. However, the grant of this petition does not relieve equipment

distributors and dealers of the prohibitions on the sale, offer for sale, or introduction or delivery for introduction into interstate commerce of the noncompliant incomplete vehicles under their control after Mack notified them that the subject noncompliance existed.

Authority: (49 U.S.C. 30118, 30120: delegations of authority at 49 CFR 1.95 and 501.8)

Jeffrey M. Giuseppe, Director,
Office of Vehicle Safety Compliance.

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